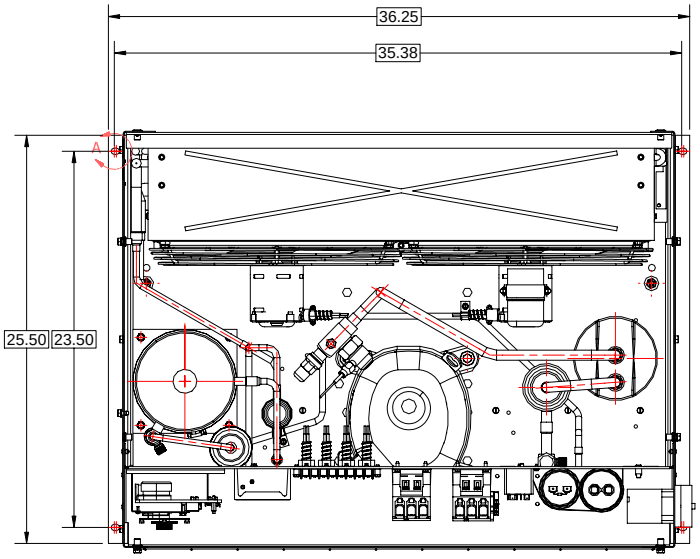
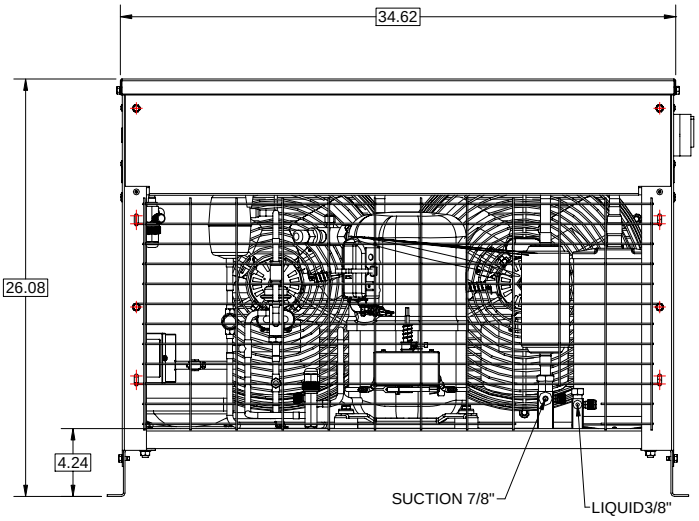
TECUMSEH OUTDOOR CONDENSING UNIT

Model	**AWA9510ZXNHN**
BOM	**32L1351-2E***
Air Cooled	**1 HP**
Application	**Commercial Temp**
Refrigerant	**R404A**
Volts-Hz-Ph	**208-230/60/1**





AWA9510ZXNHN	Overall Dimensions, inch (mm)			Line connections		Pumpdown	Air flow	Oil Ch.	Gross weight
	L	W	H	Suction	Liquid	90% @ 90°F	SCFM	Oz.	Lbs. (kg)
	26.43 (671)	36.25 (921)	26.08 (662)	7/8"	3/8"	19.80 lbs	1750	38.6	320 (145)

Factory charge 20 psig dry air, **MUST BE EVACUATED**

Evaporator		Ambient Temperatures														
		90°F			95°F			100°F			110°F			115°F		
T, °F	PSIG	BTUH	Watts	Cond T	BTUH	Watts	Cond T	BTUH	Watts	Cond T	BTUH	Watts	Cond T	BTUH	Watts	Cond T
-5	27.5	5700	1510	100	5300	1490	105	4800	1480	109	3700	1450	118	3100	1440	123
0	32.1	6600	1610	102	6100	1600	106	5600	1590	111	4400	1570	120	3800	1560	124
5	37.0	7600	1710	103	7100	1700	108	6500	1690	112	5200	1680	121	4500	1680	126
10	42.4	8800	1810	105	8200	1800	109	7600	1800	113	6100	1800	122	5400	1790	127
15	48.2	10000	1910	106	9400	1910	111	8700	1910	115	7200	1910	124	6300	1910	129
20	**54.5**	**11400**	**2000**	**108**	**10700**	**2010**	**112**	**9900**	**2010**	**117**	**8300**	**2030**	**125**	**7400**	**2040**	**130**
25	61.2	12900	2100	110	12100	2110	114	11300	2120	118	9500	2140	127	8600	2160	132
30	68.4	14500	2200	112	13700	2210	116	12800	2230	120	10800	2260	129	9800	2280	133
35	76.1	16300	2290	114	15300	2310	118	14300	2330	122	12200	2380	131	11100	2410	135
40	84.4	18100	2390	116	17100	2410	120	16000	2440	124	13700	2500	133	12600	2530	137
45	93.2	20100	2480	118	19000	2510	122	17800	2550	126	15300	2620	135	14100	2660	139
50	103.0	22200	2580	120	20900	2610	124	19700	2660	128	17100	2740	137	15700	2790	141

Performance @ 60 Hz, Return gas 40°F below 20°F Evaporator and 65°F above 20°F evaporator, SubCooling 5°F

*** OPTION CODE:** See reverse side for Available Options

Parts/Specifications

STANDARD

Unit BOM	**32L1351-2E**	Fan Motor	810F050C20
Unit MODEL	**AWA9510ZXNHN**	Replacement Fan Motor	50W230
		Fan Motor Qty	2
Refrigeration Range	-5°F to 50°F	Fan Motor RLA	0.7
Design Pressure Low / High	181 / 450	Fan Blade	51568-1
Volts - HZ - Ph	208-230V ~ 60HZ	Fan Guard	70831
Voltage Range	187-254	Shroud	70648-2
Min. Circuit Ampacity	14.91		
Max. Fuse Size	25	High Pressure Switch	84095-2L
		Low Pressure Control	84026-2
Compressor MODEL	AWA9490ZXN	Dual Pressure Conrol	
Compressor BOM	AW616ET-111-A2		
Compressor LRA	52	Head Master Valve	70083
Compressor RLA	10.64	Check Valve	56626
		Process Valve	
OverLoad	Internal	Discharge Valve (Base)	56618
Replacement Kit - O/L		Liquid Valve (Base)	56500-K06
Relay	820ARR3H23	Liquid Valve (Receiver)	attached
Replacement Kit - Relay		Suction Valve (Base)	56500-K14
Run Capacitor	85PR370F17	Suction Valve (Rotolock)	31531-1
Run Capacitor Rating	35 MFD 370V		
Start Capacitor	85PS330D69	Condenser	50855-1
Start Capacitor Rating	145-175 MFD 330V	Receiver	51099-2L
Contactor	91014B	Accumulator	TK00042000
		Liquid Filter	70139
Unit Drawing	DGU1918-L101	Sight Glass	70084-S
Wiring Diagram	WD21-2XT2	Suction Filter	70822-5S
Wiring Diagram (A or F opt.)	WD21-2AT2	CrankCase Heater	91022-1

AVAILABLE OPTIONS

32Lxxxx-2ER(F)ATnD

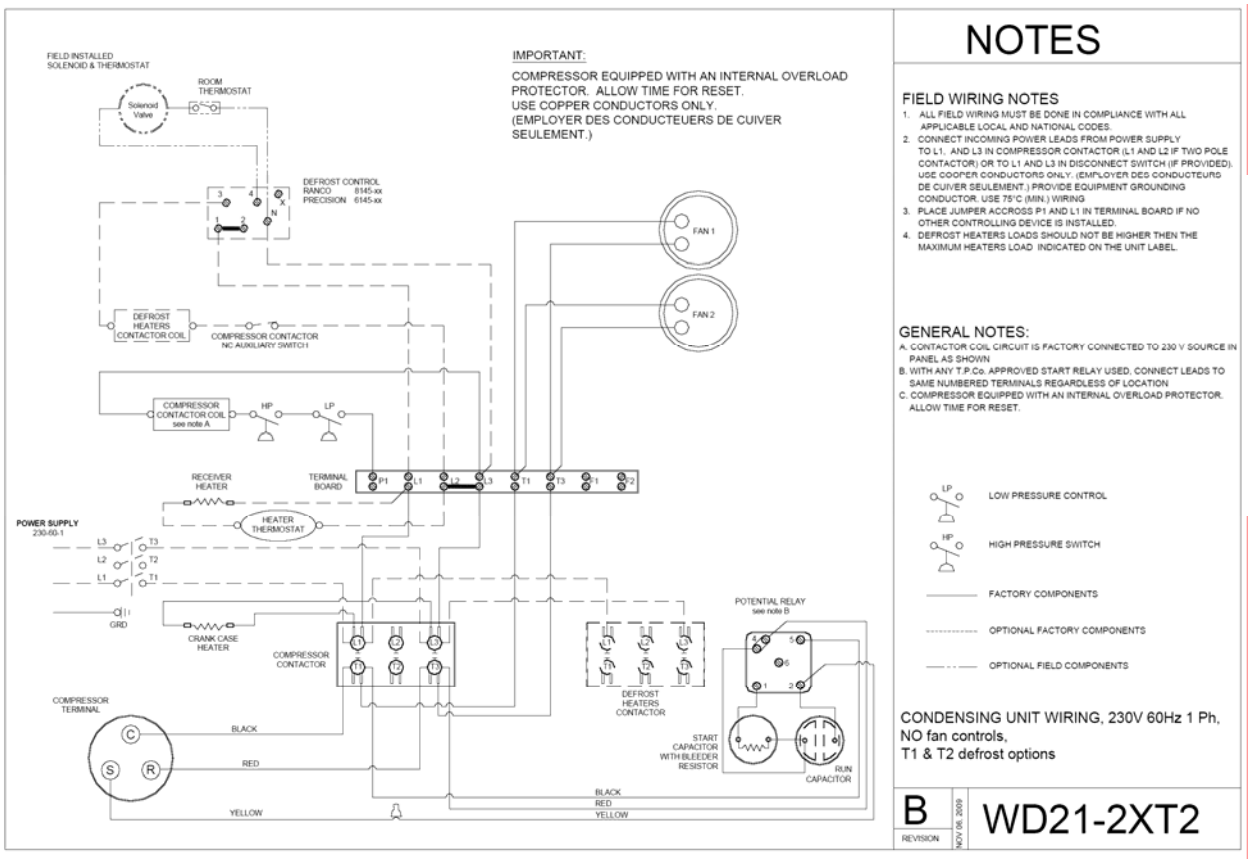
R Heated/Insulated Receiver
F Fixed Fan Control
A Adjustable Fan Control
T1 Air Defrost Timer
T2 Electrical Defrost Timer & Defrost Heater Contactor
D Disconnect Switch (nonfused)

AVAILABLE ACCESSORIES

Solenoid Valve (supplied loose)	KSVC-264
Hail Louver Assy	LLPG-201

REPLACEMENT PARTS

Receiver Heater (R option)	92124-2
Receiver Thermostat (R option)	84102-2
Fixed Fan Control (F option)	84132-01
Adjustable Fan Control (A option)	14955874
Defrost Timer (T1 or T2 option)	84110
Defrost Heater Contactor and Auxiliary Switch (T2 opt.)	91014B and 91014-AUX
Disconnect (D option)	


FIELD INSTALLED SOLENOID & THERMOSTAT
ROOM THERMOSTAT
Solenoid Valve
DEFROST CONTROL RANCO 8145-xx PRECISION 6145-xx
DEFROST HEATERS CONTACTOR COIL
COMPRESSOR CONTACTOR N.C. AUXILIARY SWITCH
COMPRESSOR CONTACTOR COIL see note A
HP
LP
RECEIVER HEATER
TERMINAL BOARD
HEATER THERMOSTAT
POWER SUPPLY 230-60-1
GRD
CRANK CASE HEATER
COMPRESSOR CONTACTOR
COMPRESSOR TERMINAL
BLACK
RED
YELLOW
FAN 1
FAN 2
DEFROST HEATERS CONTACTOR
POTENTIAL RELAY see note B
START CAPACITOR WITH BLEEDER RESISTOR
RUN CAPACITOR
IMPORTANT:
COMPRESSOR EQUIPPED WITH AN INTERNAL OVERLOAD PROTECTOR. ALLOW TIME FOR RESET.
USE COPPER CONDUCTORS ONLY.
(EMPLOYER DES CONDUCTEURS DE CUIVER SEULEMENT.)
NOTES
FIELD WIRING NOTES
1. ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.
2. CONNECT INCOMING POWER LEADS FROM POWER SUPPLY TO L1, AND L3 IN COMPRESSOR CONTACTOR (L1 AND L2 IF TWO POLE CONTACTOR) OR TO L1 AND L3 IN DISCONNECT SWITCH (IF PROVIDED). USE COOPER CONDUCTORS ONLY. (EMPLOYER DES CONDUCTEURS DE CUIVER SEULEMENT.) PROVIDE EQUIPMENT GROUNDING CONDUCTOR. USE 75°C (MIN.) WIRING
3. PLACE JUMPER ACCROSS P1 AND L1 IN TERMINAL BOARD IF NO OTHER CONTROLLING DEVICE IS INSTALLED.
4. DEFROST HEATERS LOADS SHOULD NOT BE HIGHER THEN THE MAXIMUM HEATERS LOAD INDICATED ON THE UNIT LABEL.
GENERAL NOTES:
A. CONTACTOR COIL CIRCUIT IS FACTORY CONNECTED TO 230 V SOURCE IN PANEL AS SHOWN
B. WITH ANY T.P.Co. APPROVED START RELAY USED, CONNECT LEADS TO SAME NUMBERED TERMINALS REGARDLESS OF LOCATION
C. COMPRESSOR EQUIPPED WITH AN INTERNAL OVERLOAD PROTECTOR. ALLOW TIME FOR RESET.
LP LOW PRESSURE CONTROL
HP HIGH PRESSURE SWITCH
FACTORY COMPONENTS
OPTIONAL FACTORY COMPONENTS
OPTIONAL FIELD COMPONENTS
CONDENSING UNIT WIRING, 230V 60Hz 1 Ph,
NO fan controls,
T1 & T2 defrost options
B
REVISION
NOV 06, 2009
WD21-2XT2